ABSTRACT

POLYMER FOR USE IN CONDUITS AND MEDICAL DEVICES AND BIOMEDICAL SURFACE MODIFICATION

5

A copolymer comprising (a) one or more pendant group segments and (b) one or more polyol segments, each of said segments being linked to one or more further segments which may be the same or different,

- wherein said one or more pendant group segments are the same or different and are selected from:
 - (i) siloxane segments;
 - (ii) segments containing phosphoryl choline or a derivative or analogue thereof;
- 15 (iii) segments containing a di- or trifluoromethyl group;
 - (iv) heparin-like segments containing a group of formula (XII)

$$D-N=N-Ar-SO_3$$
 (XII)

wherein D is an aliphatic or aromatic group and Ar-SO₃ comprises one or more

linked aryl and/or heteroaryl groups, at least one of the aryl and/or heteroaryl groups having an SO₃ substituent; and

(v) segments containing a group of formula (I)

$$[P]_{n'}$$
— $[Lys]_n$ — Lys — $[Spacer]$ — Lys — $[A1]_x$
(I)

25

wherein:

- [A1] is an inert amino acid;
- x is 0, 1, 2 or 3;
- 30 [Spacer] is a fatty acid, amino acid, peptide or PEG;

- $[P]_n$:-[Lys]_n is a dendritic structure formed from n lysine groups and terminating in n' groups P;
- n is an integer of from 1 to 15;
- n' is zero or an integer of up to 16; and
- each P is the same or different and is an amino acid or a peptide having up to 25 amino acids, and wherein at least a part of each of said pendant group segment(s) is on a side chain of the copolymer.
- The copolymer is useful in the production of implantable devices such as vascular grafts.